Abstract of the Disclosure

In a method of fabricating a conductive layer in an insulating film using a damascene process, a copper film is formed on a wafer in a copper formation processing chamber of a film forming apparatus, and then CMP processing is performed for the wafer in a CMP processing chamber. After the CMP processing, the wafer is subjected to cleaning processing in a cleaning chamber, and dried under reduced pressure in a reduced-pressure drying chamber. The wafer which has been subjected to the reduced-pressure drying processing is carried into a CVD unit under reduced pressure, thereby securely suppressing natural oxidization of the copper film formed on the wafer. This can prevent the oxidization of a conductive material as much as possible.